



Goddard Space Flight Center

MONTHLY STATUS REVIEW

EOS ICE, CLOUD & LAND ELEVATION SATELLITE (ICESat) PROJECT

Project Manager:	Joseph Dezio
Project Scientist:	Dr. J. Zwally
Deputy Project Manager:	Gregory Smith
DPM/Resources:	Linda Greenslade
Spacecraft Contractor:	Ball
Instrument Development:	Dr. J. Abshire/924
Ground System Development:	ESDIS/423
Launch Vehicle Manager:	Tom Jones

DECEMBER 9, 1998

PROJECT MANAGER'S ASSESSMENT

ICESat PROJECT

STATUS AS OF: 11/30/98

- **OUR MEETING WITH DR. ASRAR ON NOVEMBER 19TH RESULTED IN A CODE Y PROMISE TO RESTORE \$6M OF THE \$15M FY 99 BUDGET CUT. \$4M WOULD BE RESTORED BY FEBRUARY 99 (TO PROCURE SPACECRAFT CONTROL CENTER AND FOT) AND ANOTHER \$2M WOULD BE RESTORED BY JUNE 99 (TO INITIATE LAUNCH VEHICLE CONTRACT) SO THAT ICESat CAN MAINTAIN ITS 7/01 LRD. THE BALANCE OF THE \$15M FY99 CUT WOULD BE RESTORED IN FY00.**
- **THE PROJECT WILL CONTINUE TO WORK TO THE 7/01 LRD ON THE ASSUMPTION THAT THE RESTORED FUNDS WILL BE PROVIDED AS SCHEDULED.**

ICESat PROJECT SUMMARY

STATUS AS OF: 11/30/98

PRIMARY

S/C BUS	SEP	OCT	NOV
PROGRAM MANG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SUBCONTRACTS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYS. ENGINEERING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SUBSYSTEMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/C I&T	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OBSERV. I&T	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MAJOR INTERFACES

	SEP	OCT	NOV
LAUNCH VEHICLE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LAUNCH SITE (KODIAK)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GROUND SYS/OPS (EOS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

RESOURCES

	SEP	OCT	NOV
SCHEDULE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WEIGHT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POWER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATA RATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

INSTRUMENT

	SEP	OCT	NOV
GLAS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SCIENCE/OPERATIONS

	SEP	OCT	NOV
GLAS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BUSINESS

	SEP	OCT	NOV
R&D BUDGET	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PROCUREMENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WORK FORCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRAVEL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LEGEND

<input type="checkbox"/>	GOOD SHAPE
<input checked="" type="checkbox"/>	MINOR PROBLEM
<input checked="" type="checkbox"/>	MAJOR PROBLEM

SUMMARY ASSESSMENT

TECHNICAL	COST	SCHEDULE	OVERALL
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Undefinitized Contract Actions
UCA's By ICESat - November 1998**

NONE

“LAUNCH VEHICLE”

ICESat PROJECT

STATUS AS OF: 11/30/98

PROBLEM/ISSUES	PROGRAMMATIC IMPACT	ACTION	DATE	
			ESTAB.	COMPL.
R KSC SELVS II contract does not provide the ICESat vehicle requirement.	• Vehicle selection delays will slow GLAS instrument development and will result in a cost impact to bus “fixed-price” contract.	• Explore other L/V options. • GSFC will work with KSC to provide the ICESat vehicle.	07/98 11/98	10/98 07/99 EST.

CURRENT STATUS

- STAAC access to space package together with pro and con summary charts were sent to K.P. on August 14 and to KSC on November 23rd for review and comment.
- Project has directed Ball to stay with the Athena II baseline until further notice.
- Headquarters Manifest Meeting started to show ICESat on a Delta 7320; email sent to Asrar, Luther, Townsend, etc., clarifying that ICESat has not outgrown either the Taurus XL or Athena II vehicle.
- 10/26/98 e-mail from HQ (Karen Poniatowski) continues to show intent to manifest ICESat on a Delta with a possible NRL payload and acknowledges the budget challenge.
- Now that the SELVS II contract SEB is completed, KSC and GSFC can begin discussions to work the ICESat vehicle acquisition.

“R&D BUDGET”

ICESat PROJECT

STATUS AS OF: 11/30/98

PROBLEM/ISSUES	PROGRAMMATIC IMPACT	ACTION	DATE	
			ESTAB.	COMPL.
Y Significant FY99 Budget reduction: - UPN 227 Devel. \$15.0M - UPN 229 Science \$ 1.5M - UPN 428 EOSDIS \$ 4.9M Cut Total: \$21.4M	<ul style="list-style-type: none"> Estimated LRD slip from 07/01 to 01/02 i.e., 6 months Overall cost increase to ICESat Program of \$12M NASA impacts a fixed-price bus contract with Ball 	<ul style="list-style-type: none"> Convince NASA Management to limit FY99 Development reduction to \$9M which holds the LRD of 07/01 HQ Code Y will restore \$4M by February 99 and \$2M by June 99. The balance of the \$15M cut to be restored in FY00. 	10/98 11/19/98	11/98 6/99 EST.

CURRENT STATUS

- Code Y meeting with Dr. Asrar resulted in a commitment to restore \$6M of the \$15M FY99 cut per the above schedule in order to allow ICESat to maintain the 7/01 LRD.
- This issue is on hold pending receipt of funds in February and June 99.

SIGNIFICANT PROGRESS

ICESat PROJECT

STATUS AS OF: 11/30/98

- **NOVEMBER 19TH HQ MEETING WITH DR. ASRAR, CODE Y, WENT VERY WELL:**
 - **GSFC TO PROCEED WITH ICESat PROJECT IMPLEMENTATION TO THE 7/01 LRD PROVIDED THE FY99 BUDGET CUT IS RESTORED PER THE AGREED SCHEDULE**
 - **PROJECT IS TO MEET THE TOTAL MISSION COST CAP CHALLENGE OF \$277.9M**
 - **PI PROCESSING IS THE BASELINE**
 - **ATHENA II IS THE LAUNCH VEHICLE BASELINE**

SIGNIFICANT PROGRESS

ICESat PROJECT

STATUS AS OF: 11/30/98

- **NOVEMBER 19TH HQ MEETING WITH DR. ASRAR, CODE Y (CONT'D):**
 - **IMPLEMENT THE PROJECT AT GODDARD IN THE “TOTAL MISSION RESPONSIBILITY” MODE THROUGH THE ICESat PROJECT MANAGER WITHIN THE EOS-G PROGRAM MANAGEMENT ORGANIZATION**
 - **TRANSFER ICESat UNIQUE FUNDS FROM EOSDIS AND SCIENCE INTO THE PROJECT UPN 227-6 FOR MANAGEMENT**
 - **COST SAVING MEASURES, SUCH AS A SEPARATE PROCUREMENT OF THE SPACECRAFT CONTROL CENTER AND FLIGHT OPERATIONS TEAM ARE ASSUMED SO AS TO MEET THE COST CAP AGREEMENT**

SIGNIFICANT PROGRESS

ICESat PROJECT

STATUS AS OF: 11/30/98

- **THE ICESat MISSION DESIGN REVIEW (BEING CHAIRED BY THE SYSTEMS REVIEW OFFICE) IS BEING HELD AT BALL DECEMBER 8, 9, AND 10, 1998.**
- **INITIAL DELIVERY OF SPACECRAFT SIMULATOR, FOR GLAS, DELIVERED BY BALL.**

GSFC PROGRAM MANAGEMENT COUNCIL MONTHLY STATUS REVIEW ACTION ITEM STATUS

ICESat/UPN 227-6

STATUS AS OF: 11/30/98

ACTION ITEM

DATE ASSIGNED

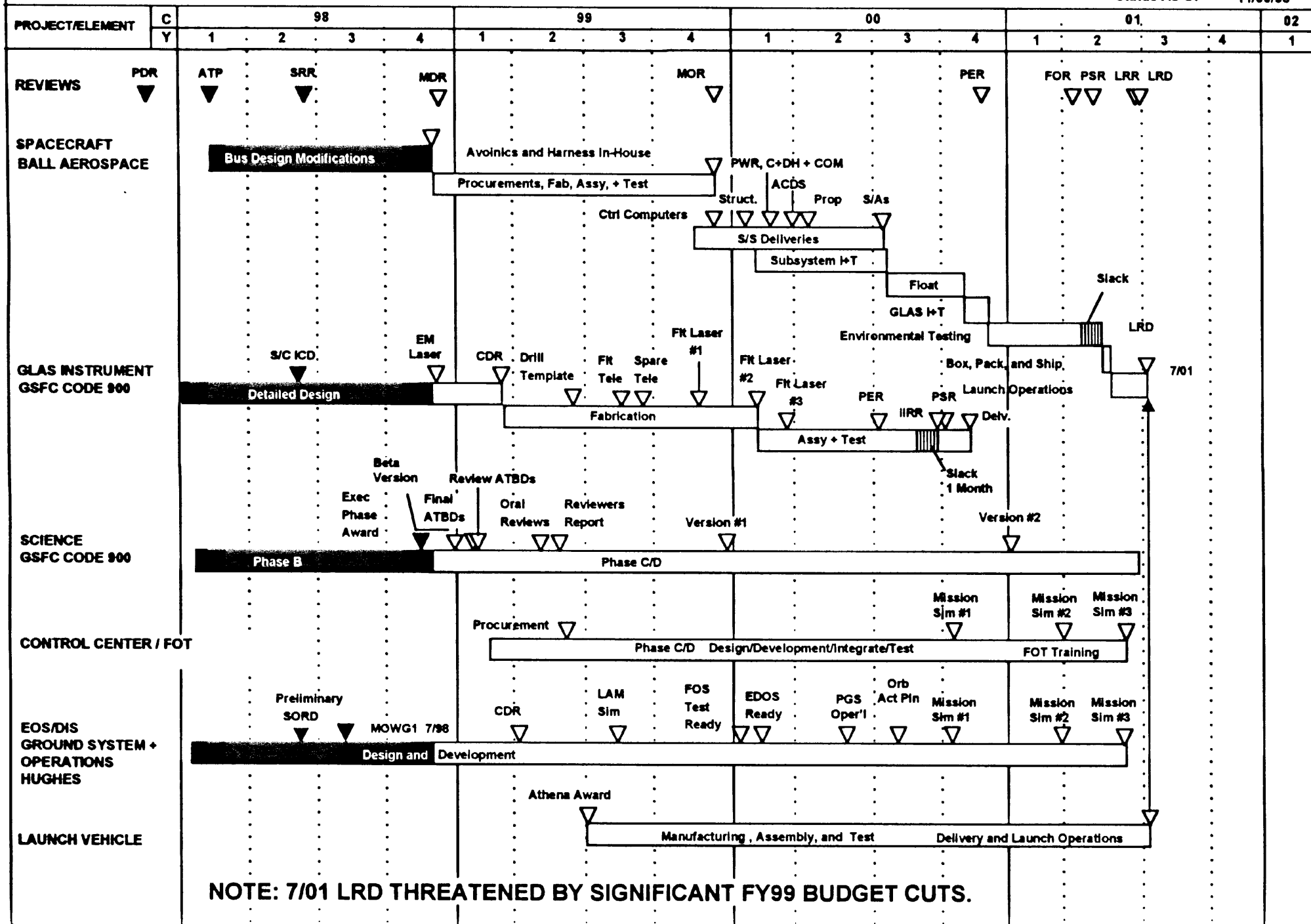
STATUS

NO ACTION ITEMS AT THIS TIME.

PRELIMINARY ICESat MASTER SCHEDULE

GSFC
APPL RESP C. SCOLES
ACCOMP RESP J. DEZIO

Orig Approval TBD
Status As Of 11/30/98



NOTE: 7/01 LRD THREATENED BY SIGNIFICANT FY99 BUDGET CUTS.

ROLLING WAVE

ICESat PROJECT

STATUS AS OF: 11/30/98

EVENTS		FY 1998				FY 1999				
		4th Quarter	1st Quarter			2nd Quarter			3rd Quarter	
		SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
1	SCIENCE ØC/D CONTRACTS AWD		▽	10/30	11/30					
2	COMP FAB EM TELESCOPE	▽	9/30	1		2	1/15			
3	COMP FAB EM SELECT MECHAN.			11/4						
4	COMP FAB EM LASER				12/18					
5	MDR									
6	GLAS CDR									
7	ATBD									
	900 STAR TRACKER PROC *									
1	A. RFP RELEASED	▽		10/20						
	B. OFFERS RECEIVED		▽	11/2						
	C. TECHNICAL EVAL		▽	11/9						
	D. CONTRACT AWARD		▽	1	2	12/07				
2	LASER REFERENCE SYSTEM *									
	A. RFP RELEASED	▽		10/21						
	B. OFFERS RECEIVED		▽	11/12						
	C. TECHNICAL EVAL		▽		1/19					
	D. CONTRACT AWARD		▽	1	2	12/04				
3	900 GYRO PROCUREMENT									
	A. LETTER CONTRACT ISSUED				4	12/18				
	B. CONTRACT DEFINITIZATION	4	5			6	1/18			

NOTES: *

ORIGINAL PROCUREMENT CANCELLED. NEW PROCUREMENT INITIATED.

TIME NOW

NOTES: *

ORIGINAL PROCUREMENT CANCELLED. NEW PROCUREMENT INITIATED.

TIME NOW

SCHEDULE SLACK OVERVIEW

(NOTE: UNDER REVIEW AS A RESULT OF FY99 BUDGET CUT)

ICESat PROJECT

STATUS AS OF: 11/30/98

	SOURCE	CONTRACT/ DELIVERY DATE	CURRENT EST.	SLACK
GLAS INSTRUMENT	CODE 924	11/00	10/00	+1 MO. TO BUS INTEGRATION
S/C H/W SUBSYSTEMS INTEGRA. COMPLETE	BALL	11/00	7/00	+4 MO. TO INSTRUMENT I&T
OBSERVATORY (SEE NOTES 1&2)	BALL	7/01	5/01	+2 MO. TO 7/01 LRD

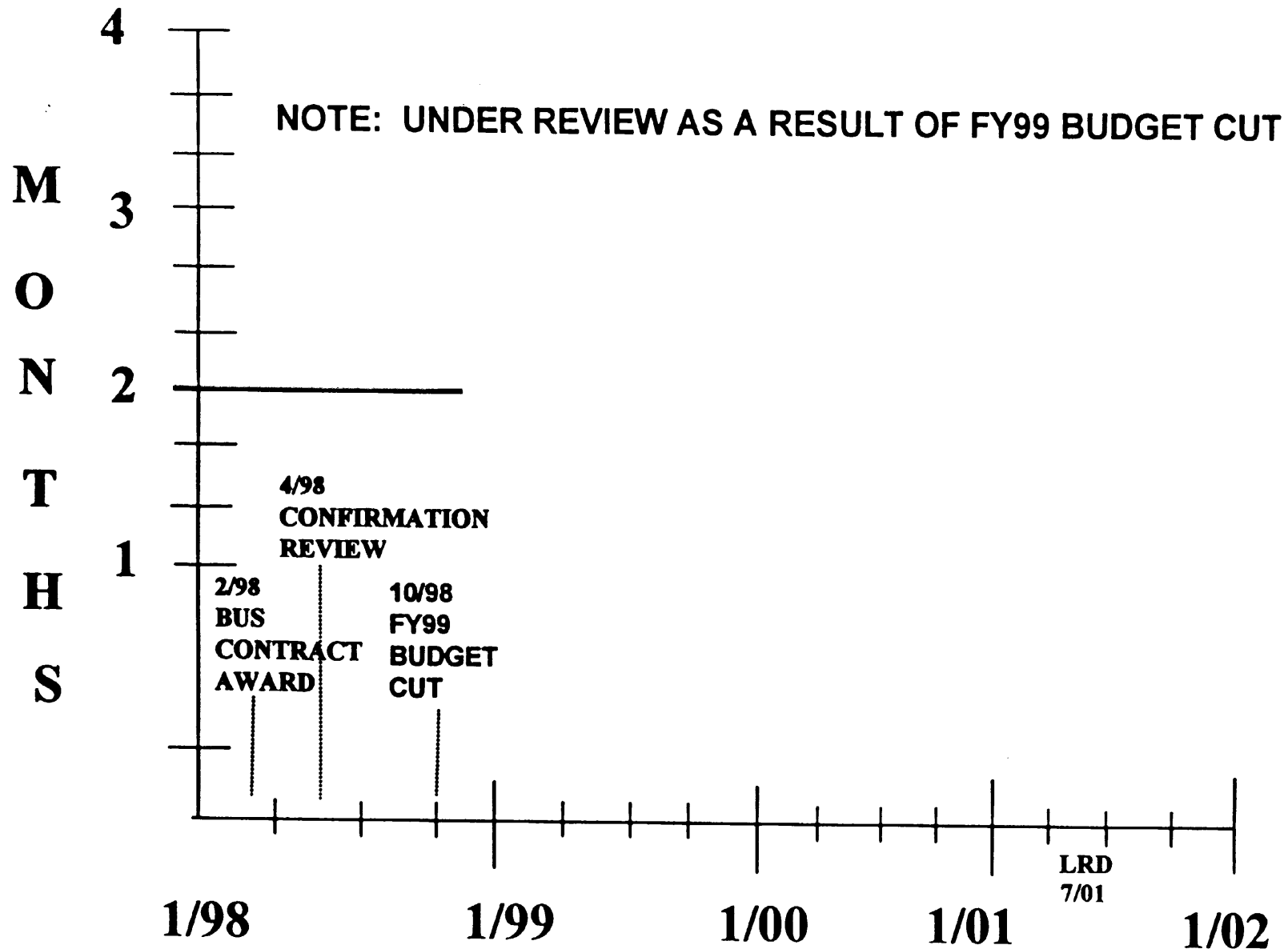
NOTES: (1) 5-DAY WORK WEEK IS BASELINED AT BALL, WEEKENDS AND
SECOND SHIFT ARE NOT CONSIDERED AT THIS TIME.

(2) LAUNCH CAMPAIGN SPANS ABOUT 60 CALENDAR DAYS BUT HAVE ONLY 41
WORK DAYS OF ACTUAL ACTIVITY PLANNED.

SCHEDULE SLACK HISTORY

ICESat PROJECT

STATUS AS OF: 11/30/98



ACRONYMS

ICESat PROJECT

STATUS AS OF: 10/30/98

ASSY	ASSEMBLY
ATBD	ALGORITHM THEORETICAL BASIS DOCUMENT
AWD	AWARD
BATC	BALL AEROSPACE AND TECHNOLOGIES CORP.
BB	BREADBOARD
CDR	CRITICAL DESIGN REVIEW
CDRL	CONTRACT DELIVERABLE REQUIREMENTS LIST
CMPL	COMPLETE
CO	CHECKOUT
DEL	DELIVERY
DOC'N	DOCUMENTATION
EOL	END-OF-LIFE
ELV	EXPENDABLE LAUNCH VEHICLE
EM	ENGINEERING MODEL
ESDIS	EARTH SCIENCE DATA & INFORMATION SYSTEM
ESSPO	EARTH SCIENCE SYSTEMS PROGRAM OFFICE
EXEC	EXECUTION
FAB	FABRICATION
FCA	FULL COST ACCOUNTING
FRR	FLIGHT READINESS REVIEW
GLAS	GEOSCIENCE LASER ALTIMETER SYSTEM

ACRONYMS (CONT'D)

ICESat PROJECT

STATUS AS OF: 10/30/98

I & T	INTEGRATION AND TEST
ICESAT	ICE, CLOUD & LAND ELEVATION SATELLITE
IMDC	INTEGRATED MISSION DESIGN CENTER
IR	INDEPENDENT REVIEW
KSC	KENNEDY SPACE CENTER
LaRC	LANGLEY RESEARCH CENTERL
MLV	LOCKHEED-MARTIN LAUNCH VEHICLE
LRD	LAUNCH READINESS DATE
MDR	MISSION DESIGN REVIEW
MGR	MANAGER
MOR	MISSION OPERATIONS REVIEW
MOWG	MISSION OPERATIONS WORKING GROUP
MSI & T	MISSION SYSTEM I & T
NOA	NEW OBLIGATION AUTHORITY
OLS	ORBITAL LAUNCH SERVICES
ORR	OPERATIONAL READINESS REVIEW
PAF	PAYLOAD ATTACH FITTING
PDR	PRELIMINARY DESIGN REVIEW
PER	PRE-ENVIRONMENTAL REVIEW
PFM	PROTOFLIGHT MODEL
PMT	PHOTO MULTIPLIER TUBE

ACRONYMS (CONT'D)

ICESat PROJECT

STATUS AS OF: 10/30/98

POP	PROGRAM OPERATING PLAN
PSR	PRE-SHIP REVIEW
REL	RELEASE
RFO	REQUEST FOR OFFER
RFP	REQUEST FOR PROPOSAL
ROB	REASSIGNMENT OPPORTUNITY BULLETIN
RQMTS	REQUIREMENTS
RSD	RAPID SPACECRAFT DEVELOPMENT
SAR	SYSTEM ARCHITECTURE REVIEW
S/C	SPACECRAFT
SCF	SCIENCE COMPUTING FACILITY
SCI	SCIENCE
SRS	STELLAR REFERENCE SYSTEM
SEL	SELECTION
SELV	SMALL ELV
SOW	STATEMENT OF WORK
SRR	SYSTEM REQUIREMENTS REVIEW
S/S	SUBSYSTEM
STAAC	SPACE TECHNOLOGY AND ADVANCED CONCEPTS

ACRONYMS (CONT'D)

ICESat PROJECT

STATUS AS OF: 10/30/98

SUBSYS	SUBSYSTEM
SYS	SYSTEM
UPN	UNIQUE PROJECT NUMBER
V	VERISON